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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

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NOTICE OF ABANDONMENT

Notice of Abandonment

Application No.

09/527,885

Applicant(s)

REED ET AL.

Examiner

TRONG PHAN

Art Unit

2818



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on 11/3/00.
- (a) ☐ A reply was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply (including a total extension of time of _____ month(s)) which expired on _____.
- (b) ☐ A proposed reply was received on _____, but it does not constitute a proper reply under 37 CFR 1.113(a) to the final rejection.
- (A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
- (c) ☒ No response has been received.
2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
- (a) ☐ The issue fee and publication fee, if applicable, was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance.
- (b) ☐ The submitted issue fee of \$ _____ is insufficient. A balance of \$ _____ is due.
- The issue fee required by 37 CFR 1.18 is \$ _____. The publication fee, if required by 37 CFR 1.18(d) is \$ _____.
- (c) ☐ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file new formal drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
- (a) ☐ Proposed new formal drawings were received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply.
- (b) ☐ The proposed new formal drawings filed on _____ are not acceptable and the period for reply has expired.
- (c) ☐ No proposed new formal drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interferences rendered on _____ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☐ The reason(s) below:

Phan Trong

TRONG PHAN
PRIMARY EXAMINER



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<i>Stewart J. Levy</i>	<i>703/308-0658</i>	<i>2830/2840</i>
<i>Howard N. Goldberg</i>	<i>703/306-3431</i>	<i>2850/2860</i>
<i>Janice A. Falcone</i>	<i>709/308-0530</i>	<i>2870/2880</i>

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Reed et al.
 Serial No. : 09/551,716
 Filed : April 18, 2000
 Title : MOLECULAR SCALE ELECTRONIC DEVICES

Art Unit : 2818
 Examiner : T. Phan

Commissioner for Patents
 Washington, D.C. 20231

RESPONSE TO OFFICE ACTION MAILED APRIL 27, 2001

The Claimed Invention

Claim 1, and each of its dependent claims, relates to electronic devices including at least two contacts and a monolayer of conductive organic material forming a conductive path between the contacts, where the conductive path includes at least one electron-withdrawing group.

REMARKS

Claims 1-21 and 26 are pending. Claims 22-25 have been cancelled without prejudice as being drawn to a non-elected invention.

Restriction Requirement

Applicants hereby affirm their election of the claims of Group I, namely, claims 1-21 and 26. The remaining claims have been cancelled without prejudice to the applicants' rights to claim the subject matter of the cancelled claims at a later time.

Double Patenting Rejection Under 35 U.S.C. § 101 Over U.S. Application Serial No. 09/527,885

Claims 1-21 and 26 have been rejected as claiming the same invention as claims 1-21 of Application No. 09/527,885. Applicants traverse the rejection as moot however, since the cited

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

September 27, 2001

Date of Deposit

Signature Shahreen Mehjaheen

Shahreen Mehjaheen

Typed or Printed Name of Person Signing Certificate

Application is not copending with the instant application. Application Serial No. 09/527,885 has gone abandoned, and the Notice of Abandonment for that case is submitted herewith. Applicants respectfully request reconsideration and withdrawal of the rejection on this ground.

Rejection Under 35 U.S.C. §103 (a) over Jenekhe (United States Patent No. 5,814,833) in View of Traynor (United States Patent No. 4,629,798)

Claims 1-21 and 26 have been rejected as obvious over Jenekhe in view of Traynor. Applicants respectfully traverse the rejection for the following reasons.

Jenekhe discloses "a composition comprising an exciplex of an η -conjugated polymer. An exciplex is an excited state complex formed from different molecules." (col. 3, lines 2-5; emphasis added). "[T]he η -conjugated polymer is the first component that forms the exciplex, and an electron donor or acceptor component is the second component that forms the exciplex. The second component is different from the first component..." (col. 3, lines 10-14; emphasis added). The Jenekhe invention is described as relating to "an assembly comprising the η -conjugated polymer and the electron donor or acceptor component, the η -conjugated polymer and the electron donor or acceptor component having a physical contact relationship in said assembly that is sufficient to permit the exciplex to form when at least one of the η -conjugated polymer or the electron donor or acceptor component is in an excited state. The assembly can be a bilayer or multilayer structure." (col. 44, line 66 to col. 45, line 7). Jenekhe further describes more detailed configurations of the bilayer or multilayer structure in cols. 45 and 46. A dispersed assembly of the two components is also described in col. 46, lines 12-21. The Office Action also refers to Jenekhe's Fig. 8, with a film layer 2 "polymeric film of a polymer within the contemplation of the light emitting device of the present invention having at least one repeating structural unit within the contemplation of the formulae above" (col. 48, lines 63-66).

The disclosure of Jenekhe does not describe a monolayer of any material. Neither the Jenekhe figures, nor their accompanying text, discloses, suggests, or relates to a monolayer of conductive organic material as recited in the pending claim 1, and any of its dependent claims.

Traynor discloses "electrically conductive PP (polypyrrole) conductors which are generally electrodeposited as powders which are compactable, that is pressable or extrudable into shaped articles" (col. 4, lines 51-54). Traynor also discloses that "PP is formed as a powdery

deposit which remains on the electrode surface and no significant slow-down of polymer build-up is noted the electrodeposition continues. Because it so happens that the PP powder is compactable, it is fortuitous that the PP is generally deposited as a powder. In some cases, depending on the choice of substituents and conditions of electrodeposition, a PP film may be formed. As will be appreciated, when a film is formed, as is the case with known PPs, build-up of the film on the electrode will tend to insulate the electrode, slowing deposition of the polymer." (col. 6, lines 35-46). The thickness of the powdery deposits of Traynor are disclosed as "typically in the range of 0.01-0.2 mm thick. (col. 7, lines 45-47). There is no disclosure or suggestion in Traynor of a monolayer of conductive organic material.

There is a fundamental differentiation between a tractable powder and a monolayer, as would be apparent to one of ordinary skill in the art. A tractable powder, as Traynor teaches, is a bulk material, and can be removed from the electrode, dissolved or recast. A tractable powder is a multilayer structure grown to macroscopic thickness (as taught by Traynor, beyond the micron range and into the millimeter range) rather than using the single molecule thick nanometer-sized range of the starting molecular units. Conversely, the claimed invention requires a monolayer, which becomes bonded to the electrode surface, is far thinner, and assumes a two-dimensional array of a one-molecule-thick coverage layer.

Since neither cited reference, alone or in combination, discloses a monolayer, suggests the formation of a monolayer, or provides motivation for one of ordinary skill in the art to modify either reference to include a monolayer, and since the suggested combination would lack an element of the pending claims, there can be no *prima facie* case of obviousness. Applicants respectfully request reconsideration and withdrawal of the rejections.

Applicant : Reed et al.
Serial No. 09/551,716
Filed April 18, 2000
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Attorney's Docket No.: 02893-036001

CONCLUSION

Applicant asks that all claims be allowed. Enclosed is a \$195 check for the Petition for Extension of Time fee. Please apply any other charges or credits to Deposit Account No. 06-1050, with reference to Attorney Docket No. 02893-036001.

Respectfully submitted,

Date: September 27, 2000

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